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Health

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Editorial

Stud Bulls and India's Health and Well-Being

His Excellency Lord Linlithgow, Viceroy and Governor-General of India, has given a good start for the agricultural improvement of the country, by presenting two stud-bulls to Delhi. He has also circularized the Provincial Governments to see that sufficient number of stud-bulls aremaintained for breeding purposes and for improving the live-stock and that philanthropists and public spirited men are also encouraged to help the people in this direction. His Excellencyfurther recently exhorted Local Boards and Municipalities to supply milk free to the poor children within their areas so that there may be a betterment in the physical condition of the future generation of India. These are good beginnings indeed, which one cannot but expect of a sympathetic Viceroy, who being a farmer himself, has natural leanings towards the peasant population. We are profoundly thankful to him for his generous gestures. But we are sorry to note that he has begun at the wrong end. Indian peasants know the value of stud-bulls, as much as His

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CLEAN BABY WANTS CLEAN MILK PLEASE

Excellency does. In fact, till two or three decades ago, every village—nay every home in every village—owned a stud-bull or two. They were well-fed, well-kept and well-looked after. These bulls were exhibited on the second-day of the Pongal feast every year and even prizes were awarded for the best bulls. Those days are, alas, gone and Indian villages to-day present a dreary appearance with only naked walls and deserted homes and a few human and animal skeletons dragging on their hungry and weary existence. We are not drawing an exaggerated and alarming picture here but are only revealing true facts, having had the opportunity to compare the half-a-century old with the present day conditions of village life in this part of the country Most of the villagers have run away to towns nearby in search of labour so that they may be assured of at least one meal a day. Here, the law of supply and demand operates with unrelenting rigour and consequently they are faced with unemployment and starvation. The unemployed in towns and cities are now asked to go back to villages. Thus, from Scylla to Cherybides they are tossed about. What people now want is food and no stud-bulls. According to the report of the Special Officer deputed to enquire into village life in South India, the average annual income of a peasant has been estimated at Rs. 30. With this amount, it will be impossible for him to maintain a family consisting of himself, his wife and one or two children. The economic status of the people must therefore be raised first before any attempt is made to improve cattle and agriculture. This is in consonance with the finding of the Conference held at Cape Town in 1932, under the auspices of the Health Organization of the League of Nations, which runs as follows:—"that most important in the amelioration of health conditions are measures directed towards raising the economic status of the population; this automatically results in the improvement of the two at least of the most important factors operating towards raising the standard of national health, *i.e.. nutrition and housing.*"

Now, to take the live-stock first, to improve its condition, fodder is the first requisite. In villages, there are no grazing grounds at all now and forests are prohibited areas. Every available common pasture land has been taken over and assigned for revenue purposes. Green grass is essential for cows, to yield rich milk. Straw can only be a subsidiary fodder. It is suggested in some quarters that each peasant should grow grass in his own land and must set apart a few acres for the purpose. In India, where most of the holdings are fragmentary, it is not possible to do so. The Government must therefore throw open the reserve forests for pasturage

Secondly, cattle will require sufficient quantity of bran etc. While hand-pounding was in vogue, nice bran was available but mill-pounding to-day leaves only the husk and not bran, for which the cattle have aversion. The mill-pounded bran is as unhealthy to the cattle as the mill-pounded rice is to the human beings. Rice-mills must be stopped and this cannot be done without Government support. There is no good allowing rice-mills to be erected in every nook and corner and at the same time telling people to consume

hand-pounded rice only. Mill-pounding is both labour-saving and economical and people cannot therefore be dissuaded from *resorting to it, unless* they are forced to submit to the inevitable by their entire absence.

The housing condition of cattle is the third point to be looked into. To provide a sanitarily perfect cattle-yard with due protection from sun and rain, while the owner of the cattle himself has to remain content with living in a dark, dirty, kucha hovel is again an economic problem which has to be faced.

Water scarcity in most of the villages especially during summer-months is another factor that stands in the way of effecting improvement to the live-stock. The Government must see that every village is supplied with sufficient water.

Slaughter of animals for food and their exportation to foreign countries on large scales are temptations that induce owners to sell their cattle away in times of distress, as they do gold now. Cows especially were never sold for slaughter and were the objects of reverence in ancient times in India. They were kept on and fed until they died a natural death. Government must put a stop to exportation of cattle. The present depletion of live-stock is partly if not wholly due to this trade in cattle or more properly, meat trade.

Next, with regard to milk supply, there is no doubt milk is a complete diet in itself for the young, adult and old, men, women and children. But apart from the insufficiency of milk supply, which it is now intended to overcome, there is the danger of adulteration of milk, especially in cities and towns. Government and Local Bodies must see that this wholesale adulteration of milk is put a stop to and proper provision is made *for it.*

Further, the milk must be tubercle-free and unless the milch cows are examined and passed by competent authority as fit and the milk is tested before consumption, danger from tuberculosis will always be lurking there.

Again, people have been tempted to drink tea, coffee and other beverages, and even the little quantity of milk that is available is mixed up with them, with the result that people only drink now-a-days caffein-poison and not milk. The propaganda for tea, and coffee is so intense and so alluring that any counter-propaganda against their use pales into insignificance. Will the Government be able to put a stop to such propaganda?

There are lastly certain artificial milks which are being dumped into the Indian markets. Knowing full well that they stand no comparison whatever, with freshly drawn cow's milk and that they are widely substituted for breast milk for infants, will the Government prohibit their importation?

Ghee as is now consumed by the people is awfully adulterated and it is only some stinking animal or vegetable fat that is now being sold in the markets. No rigorous steps have been taken as yet by Government and Local Bodies to put a stop to the marketing of this so-called ghee.

Thus, it will be seen that with a view to effect improvement in live-stock or in human nutrition, a good deal of spade-work is necessary and in the absence of this, we are

constrained to remark that all the efforts of Government, Public Bodies and Private Philanthropists will be sheer waste, and will be productive of [illegible] and enduring benefit to the people at large.

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The Use and Abuse of Castor Oil in Children*

—By Dr. M. Royan, M.D.,—
Bangalore

Ladies and Gentlemen,

I am fully aware that the subject I have chosen for to-day's lecture is not a fit one to attract a large gathering, for there is no glamour about its title and nothing novel about its name. It does not create any academical interest nor does it excite one's curiosity. It is about castor oil and every one knows it is a purgative and very often the very mention of its name is repulsive to many. However unpleasant the mentioning of its name may be, yet this is the one drug which is sanctioned and sanctified by tradition from time immemorial for infants and it is the most widely used medicine in Indian homes and the first drug the infant tastes after it sees the light of the day. Castor oil plants are common and apparently grow wild in jungles of India. It is cultivated throughout India chiefly in Madras, Bengal and Bombay Presidencies. Two varieties of the plants are known, one yielding large red seeds and the other small grey seeds. Oil expressed from these seeds have been put to many and varied uses such as, illumination, lubrication of all sorts of machinery, in the making of soaps, candles, pomatum, in paper making, for leather dressing, etc. It is used as a purgative for human and animal beings.

No doubt its use as a purgative is universally known but without knowing its proper indications, it is administered to children for so many ailments in season and out of season and it is thought to be a panacea for many evils and even as an health preserver.

In some houses castor oil is given to infants daily in small quantities, some give it on alternate days, some once in 4 days or 8 days according to their established practice. In some houses it is an every-day-routine to give castor oil in drops in mother's milk and then a full dose weekly. This habit is generally kept up till the 4th month and sometimes till the 12th month. Whether the infants are healthy or otherwise, this custom in the family is traditionally kept up and the stomachs of these innocent infants are converted into castor oil receptacles. If perchance, an infant is not given castor oil for some time and if it should exhibit any signs of seediness the mother-in-law will at once accuse the

* A Lecture delivered on 8th May 1936 at Sharada Sthree Samaj during Baby Week Celebration under the auspices of the Indian Red Cross Society, Bangalore City Branch, and sent to 'Health' for publication.

daughter-in-law for her gross negligence; the neighbours will comment on the mother's indifference towards giving castor oil and some kindly friend who may chance to visit the house will scold the mother and insist on castor oil being given at once. Whether the child is in perfect health or not, the administration of castor oil in this manner is a common practice in many of our Indian homes. A simple question to mothers as to how often they give oil to their babies will reveal these facts.

If the mother is healthy and the baby is fed with her milk at regular intervals and if the baby is lively and cheerful, having regular motions and sleep, grows well from time to time there is absolutely no indication to give castor oil so often. Unfortunately, the mothers, some of them at least, in their over-anxiety to see that the children grow well quick, feed them with cow's milk in addition to mother's and some even add one of the many artificial foods which are so widely advertised in several languages with pictures of attractive bonny babies and cause digestive troubles in children and for mother's faults, the infants fall victim to castor oil and also to gripe water which has obtained an equal rank with castor oil in many houses now-a-days. Castor oil is indeed a good remedy for children provided you know when to give it. Before I proceed to mention about the indication for castor oil, I shall say a few words about castor oil itself.

There are many kinds of oil prepared and sold in bazars especially meant for children known as "Makkala Yennai" (Oil for children). Some of these products produce more motions than necessary and cause griping pain. Such oils should be avoided.

The oil used should always be of pure quality and fresh. It should be clear, odourless and almost colourless. Such oil is drawn from the seeds by expression instead of by heat and is known as "cold drawn castor oil" and is sold in bottles with such labels on them for a small price. When you *buy a bottle of castor oil do not huddle* it up with all other miscellaneous bottles of medicines in musty old corner of a niche. If the cork is lost get a fresh one and do not keep it closed with a rolled up piece of old cloth or paper. Do not allow the oil to trickle on the label and soil it. Keep the bottle clean always and give it a respectable place and keep also a separate aluminium or silver teaspoon according to your means by the side of it. A teaspoon is always a better one to measure the oil than the "Allai" (Infant's feeding cup).

The usual dose of castor oil for infants under one year old is half to one teaspoonful. It is generally given mixed with mother's milk or cow's milk. Sometimes gripe water or omum water is mixed and given. It takes about 4 hours to act on the bowels and sometimes much earlier when children have weak bowels.

The following are a few indications for administering castor oil to children with safety :—

If the child becomes constipated suddenly in the midst of good health a full dose of castor oil is given to unload the bowels *i.e.* in simple constipation.

In simple diarrhoea within a day or two after the onset, a dose of castor oil as a purge to clear out the cause of the trouble. This not only checks

further diarrhoea but has a subsequent constipating effect which is just what is needed in these cases.

In diarrhoea especially when there is reason to suspect irritating material within the intestine.

Cases in which the lower part of the bowels seem to be affected as may be shown by the presence of much mucus with or without blood, small doses of castor oil, 4 or 5 minims every 6th hour seem to be particularly useful. Large doses should not be given constantly in these cases.

In the screaming fits of badly fed children a dose of castor oil is indicated. In teething of infants an aperient dose of one teaspoonful when there is slight fever or the gum seems to be especially painful.

Castor oil is useful externally in the following cases:—It is a soothing application to the eyes and can be applied in drops at the commencement of sore eyes before resorting to proper treatment. If there is any irritation due to small particles of dust and if the child is seen rubbing its eyes and screaming, a few drops will act as a soothing agent.

An improper method of Oiling the Eyes of Children

It is applied to the anus as a soothing agent in excoriations resulting from passing hard stools: slight application on dry and scaly skin makes it soft and smooth. A small quantity of castor oil is smeared on hand and the abdomen is lightly massaged to expel wind. Castor oil should not be given to children during high fever when there is running from the nose and where there is cold in the chest with wheezing noise and; above all I would like to mention an important fact regarding the administration of castor oil in habitual constipation of children. Castor oil is not at all a good drug in such cases. It increases the torpid habit of the bowels, an effect constantly witnessed in children. It should be remembered that this drug has not only a purgative action but also a markedly constipating effect which follows as an after-effect when a large purgative dose is given. If castor oil is given as it generally is, as a purgative to an infant with habitual constipation, the effect each time is to open the bowels and then make the child costive again and so the bowel is encouraged in its habit of constipation and this chronic constipation brings slow progress in nutrition *i.e.*, failure to gain weight, constant vomiting, constant screaming, colicky pain often aggravated by the presence of flatulence. A more serious outcome of constipation in some infants is a convulsion. The mother, being ignorant of these effects in her anxiety to relieve the child of its constipation, gives castor oil, the most favourite, universal, handy and readily obtainable drug in every home and sets up a vicious circle, thus seriously affecting

the constitution of the child. Such cases are not rare but are more common than one could imagine, and I have come in contact with a large number of such cases during the course of my practice in the city of Bangalore. Castor oil is certainly not the drug to be recommended for habitual constipation but there are other suitable treatments which could be got in Childrens' Hospital, in local dispensaries and from other medical practitioners.

I bring this fact not only to the serious consideration of mothers but also to the notice of Baby Welfare Workers, Lady Health Visitors, nurses and midwives so that they may give useful instructions regarding the use and abuse of castor oil in children.

Ladies and Gentlemen, my task for the evening is finished. If I have not said anything new to you I may be pardoned for taking up so much of your valuable time but if I have said anything useful I have done so in the interest of innocent babies who are the hopes of the future generation and upon whose health, manhood, and womanhood depend the future glory, power, pride and prosperity of our country.

I thank you for your patient hearing.

CARE OF THE HAIR

By Dr. D. R. Prem,

M.R.C.S., (Eng.), L.R.C.P., (Lond.), National Medical College, Bombay.

Due to the hot climate of our country, every person washes his or her hair practically daily, sometimes along with the bath, sometimes alone. But there are few persons, who really care to learn much about the hair. It is surprising, because hair has a great share in making or marring the beauty of a person.

What is hair? Hair is an appendage of the skin. Some cells of the skin take up the special function of forming hair follicles, in the canal of which open the sweat glands and the sebaceous glands. The former make the sweat, in which are contained certain excretions of the body. The latter secrete a fatty substance, which keeps the hair-follicles and the skin lubricated.

The function of the hair is mainly protective. The hair of the mustache, of course, is a sign for distinguishing a man from a woman, unless a man shaves it clean.

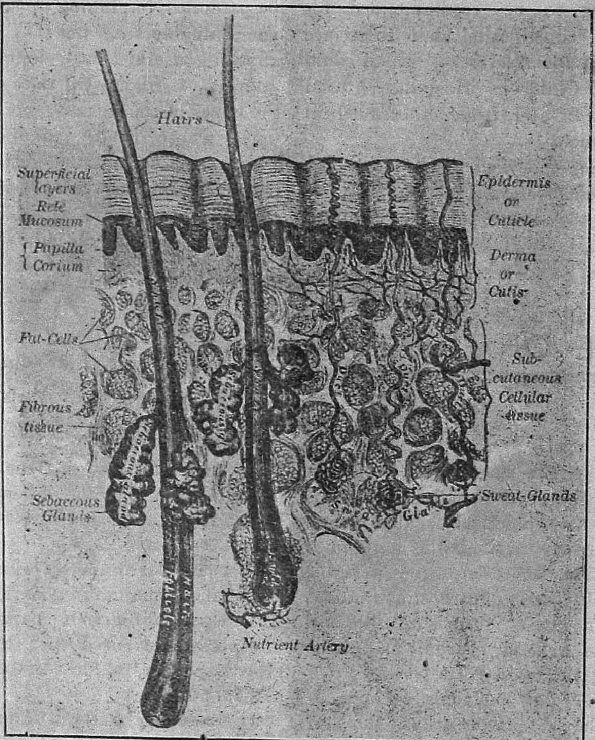
Just as cleanliness of skin is very essential to maintain good health, so is it essential for those parts which are specially favoured with luxurious growth of hair, as for instance scalp, axillae, pubes.

The best way is to wash these parts every day with hot or cold water and soap; ordinary cheap soaps are injurious for the hair. *Shikakai* can also be used for the purpose. It may not be possible for ladies with long hair to wash it every day. But they can do so about twice a week. Hair of axillae, pubes etc., can be clipped from time to time or shaved with razor. If a depilatory is used, great

care should be taken in its selection. Because many chief depilatories advertised in the papers are nothing but harmful.

What should be used for dressing the hair? There are so many things available in the market, brilliantines, oils, snows, shampoos, creams and what not. But many of them are injurious. In many hair oils and creams they use white oil as the base, which does a great harm to the hair. If at all these things are used, a very careful selection must be made. The best thing to use is pure cocoanut or sesame oil or oil of *Amla*. The oil should not be simply applied, it must be well rubbed into the roots.

Most of the *diseases of the hair* are due, directly or indirectly, to uncleanliness. If regular bath is not taken the sweat or sebaceous secretion collects in the hair follicles and becomes a suitable nidus for the growth of disease-germs. Furuncles, boils, pediculosis are the results of these.



A magnified section of the Skin showing hair and hair follicles.

On the scalp dandruff is very important: 50 % of the people suffer from it sometime or other in their lives. Dandruff is a scurfy condition of the hair of the scalp. This is due to a germ and those who come in contact with the patient can be infected. This is a slowly progressing condition, but may end in great loss of hair, which does not re-appear. Favus and ring-worm are other scurfy conditions of the scalp and in all these cases an expert doctor must be consulted.

A few words about hair dyes wil not be amiss here. Those who wish to hide their grey hair have every right to do so, but they should not rely on any and every dye. I have seen for example, where instead of blackening the hair the so-called hair dyes have produced acute inflammation of the beard and moustache. On examination these dyes were found to contain too much of acid. I hope those interested in the dyes will remember these few words of caution.

The Place of Vegetables in Our Diet

——By. Dr. L. R. Fernandez——

Trichinopoly

THOUGH our non-vegetarians do participate in vegetables—in fact the generally used word, "non-vegetarian", is only a misnomer—there is a fallacious notion among many of them that *there is not so much of* nutritive value in vegetables as in meat. On the contrary, vegetables, both raw and cooked, possess a very high nutritive value of their own which has been little recognised by the votaries of meat diet. Fresh vegetables are an abundant source of proteins and the newly discovered food elements called vitamins which are very nutritious. The more one partakes of the fresh vegetables, daily at both meals, the healthier he will be as they supply to the body calcium, iron, potash and other salts in very important quantities. Ladie's *fingers*, cabbages, spinach, cucumbers, brinjals, drum-sticks, beans etc., contain these salts in good proportions.

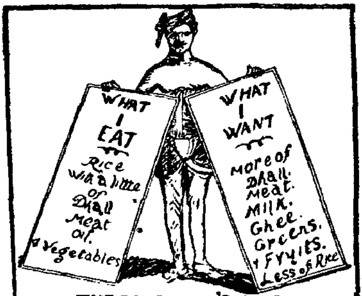
Another particular virtue of vegetable food, especially the stalk-vegetables, is that they prevent constipation by supplying the essential bulk or roughage in the form of cellulose. Chiefly for people of a heated constitution, *and those past 50 years of age*, when the elasticity of the intestinal muscle walls is gradually lost, the vegetables go a long way to help the peristalsis or wave-movements of the intestines in pushing their contents onwards. Articles of diet such as white bread, mutton, fowl, coffee etc., are likely to produce chronic constipation, and for this pills, powders and laxatives are not powerful enough to effect a permanent cure, as they make it more and more chronic. For such people vegetables are of immense value. The pregnant women also are very much *benefited* by vegetables. Instead of stuffing them with meat etc., if they liberally take vegetables, many of the toxaemias of pregnancy such as persistent vomiting, *swelling of the feet*

and face, fits of eclampsia etc. will disappear.

Many people abstain from the use of vegetables from fear of bowel infection. If you entertain any such fear, dip the vegetables in a weak solution of potassium permanganate and then rinse in clean water that has been previously boiled and cooled. When the vegetables are well boiled where is the fear of infection? Of course great care should be exercised in selecting sound fresh vegetables. Any vegetable showing signs of decay or which has been soft through long standing, should be vigorously rejected. The average market in India offers a variety of vegetables in all the seasons of the year. Every house, wherever spare land is available should cultivate a small garden of fresh vegetables. What a boon this will be to the impoverished masses of our vast sub-continent! Chiefly let the advocates of birth-control with their night-mare of "over populating" India will do well to bear this in mind and exhort people to make use of the extensive plots of ground in each village and town, instead of erroneously advising them to stifle un-born and about-to-be-born babies in the semen.

The most commonly available dhal, beans, peas are specially rich in protein elements, the proportion being about twice that of wheat and 50% greater than mutton or beef. They also contain a liberal supply of carbohydrates and salts. From these one gains an additional advantage due to their alkaline and base-forming properties. These properties aid materially in counteracting the tendency in modern feeding towards an acid ash-forming diet. Acidity is inimical to the best interests of life and longevity. The foods which leave an acid ash are meat, fowl, eggs etc. Where these are made use of, it is essential to provide liberally those foods which counteract this tendency to acidosis by their alkaline or base-forming elements. Such foods are beans, dhal, green-vegetables usually served as salads and cauliflower, turnips, asparagus, tomatoes and potatoes.

Of all Indian vegetables, potatoes are the easiest to secure, and keep without spoiling for a pretty long time. They are readily digested if well prepared, and rank high in nutritive value, being rich in carbo-hydrates, in the alkaline base-forming salts, and in anti-scorbutic factors. People of all ages and stations in life can take them without fear, the only forbidden section being the diabetics. Potato is low in protein element, but it contains sufficient quantity of this to meet man's needs under the strain of moderate labour. The value of the potato cure in diseases of uric acid is now well established. In this disease the patient is placed on a diet of potatoes, green vegetables and cow's butter. As the potatoes have the power of dissolving uric acid



THE POOR MAN'S FOOD

crystals, he is encouraged to consume large quantities of them. They are best taken boiled. Frying or cooking it renders it most indigestible. Chiefly those of weak digestion will do well to note this. Many people peel the potato before boiling. This should not be done. Many more throw away the water after boiling the pototoes. Neither should this be done, as the water contains vitamins. An admirable vegetable soup which I recommend to my friends and patients and those who cannot indulge in meat diet on Fridays and days of Ekadasi is this: Take 5 potatoes, 6 butter-beans and a handful of green peas and boil these with some onions and spices in 3 tumblersful of water, and remove it from the oven when it has come to one tumblerful. Take it while warm. It is really very palatable and nourishing. My clients have thanked me for this advice, times out of number. Why to go in for all those costly tonics, chiefly those who can't afford to pay for them, when Dame Nature can supply the best of nutrient tonics in our own gardens?

A word about tomato. This is rich in organic acids, basic substances and protective elements and is indeed a very wholesome food. If the westerners say "Take an apple a day and drive the doctor away", we can surely say:

" Take a tomato a day
And drive the disease away"

Moreover tomato is more handy, cheaper and more easily available than apples, both in the city and the suburb. I consider tomato as the sister of potato, and the more handsome and sweeter of the two. You can-kiss her, spoon her but not squeeze her. She requires to be handled more tenderly. Neither can you boil her, as the vitalising vitamins will be destroyed and become a case of "Love's Labour Lost". She is best enjoyed in the bashful, glossy and virgin state.

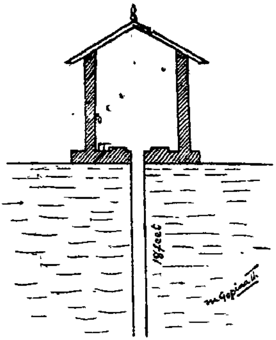
Bore-Hole Latrines

—By G. T. Gopalakrishna Naidu—
Asst. Dist. Health Officer, Tanjore.

THIS is a subject which though till last year was new to the Madras Presidency excepting perhaps Madura District, has now been very much in the air. Some wink at it; a few others say that it cannot work; and some others swear that it is a failure. I do not find any reason for such wholesale condemnation, having been at the works personally and having been satisfied that the bore hole latrine is only a beginning of the end which Officers of the Public Health Department wish to attain.

Description.—Bore-hole latrine as its name indicates consists of one, two three or more bores dug 15 to 20 feet below ground level, with a superimposed mound or platform of well puddled clay and mud or bricks and chunam or cement concrete hollow blocks covered over with cement concrete slabs (one on each bore) which slope from their peripheri to a central oval aperture. These bores are screened in front and behind by zinc sheet enclosures fixed together and to the ground by angle and flat irons. Each

slab resting upon a bore constitutes a seat and these seats are screened between one another by the same kind of material referred to above. For places like Tanjore, Madura, Trichinopoly etc., no covering for latrine is necessary. In fact the covering does much more harm than good, as it prevents the contents of the bores being exposed to sun-shine. Further a continuous stink is evident in such of these latrines.



A Bore-Hole Latrine.

How to use it.—A person has to ease himself in such a way that night soil goes directly into the bore without touching the slabs or sides of bores. This is not difficult as with a short experience, villagers adapt themselves splendidly. Water taken for ablution should be utilised on the slab itself for the simple reason that a certain amount of water is necessary for nitrification. Those who are not familiar with the latrines do soil the slabs. Hence scavengers are utilised to wash the filth down into the bores and it is always useful to smear with cow-dung paste that portion of the bore which is near slabs.

Results obtained.—Villagers may complain that latrines are not necessary for them as there is plenty of open space around their villages. It is no doubt true; but they forget the continuous soil sanitation which is going on slowly but surely. To my experience I have found that women use these latrines for the simple reason that they afford privacy, children use them as a mere 'Tamasha'. But all the same, results so far seen, are satisfactory. The menfolk will certainly use them in the long run. Further, a certain amount of propaganda is being done by the latrines themselves. Where in a place, which was barren and abandoned, is now seen a zinc sheet or mud walled enclosed latrine, the passers-by and the passengers in buses on roads talk to themselves that we are constructing latrines in villages, though they do so with more of sneer than of approbation and good will. A certain amount of sneer is to be borne by us in the discharge of a work fraught in the long run with successful results.

Selection of sites for bore-hole latrines.—A judicious selection has to be made. A dry elevated poromboke site with moderately hard soil, away from drinking water sources, is an ideal one. But if circumstances array against us, discretion should always be exercised. A site with water source within 100 feet with subsoil water flowing from latrine towards the water source should be abandoned. This may seem difficult for all theoretical purposes. But once we gain experience in the field, there is no difficulty at all.

Soils of different nature have been met with. Clay bottom at the 8th to 10th feet with oozing subsoil water has been met with. Sandy soil with friable and collapsing sides is not

uncommon. Moderately hard mud without any traces of subsoil water down to 20 feet has also been seen in our experience. At any rate soil in deltaic areas is the worst negotiable one. Bamboo baskets of about 13½ inches diameter, *i.e.*, half an inch smaller than the bore itself have been sunk into the bores for preventing collapsible sides. Subsoil water has been met with even at the 5th feet from ground level.

Various difficulties arise and various improvements are necessary. So far Bore Hole Latrines have never been found to be unworkable when we utilise all our resources at our command.

Age of Latrines.—A latrine of four seats for a population of about 1000 lasts for about 24 months. The already fixed slabs should be removed when bore holes are filled up till to a height of 2 feet from ground level, mud thrown in and bores filled up. Another site is chosen, bores are dug, mounds constructed, slabs fixed and the enclosures around the first latrine are bodily removed and put up around the second. This new latrine is thrown open for use. At the end of about two years borers are inserted in the bores of the first latrine, mud is then removed (which by the way comes out very easily) laying bare the original bores. A similar shifting of enclosures from the 2nd to the 1st latrine with all the minor details attended to, completes this bore hole latrine. This process is repeated twice or thrice till probably the bores get sewage sick, in which case new sites are to be chosen. This of course may happen only about 6 to 8 years after the initial scheme in the village.

Improvement in sanitary condition.—These bore hole latrines create a sanitary conscience in the people. Promiscuous defecation is avoided, streets and lanes become clean and the usual nightsoil odour on the approach of a village is altogether done away with. Ankylostomiasis (Hookworm disease) is annihilated and epidemics of water borne diseases especially in deltaic areas are prevented. In the long run people begin to construct private bore-hole latrines in their compounds and co-operate with public health officials in the reduction of soil sanitation.

Conclusion.—I have endeavoured to give a bird's eye view of the bore-hole latrine scheme upon which constant attention is now being bestowed. It is no way exhaustive nor does it claim to be authoritative.

The scheme has been found to be successful in a virgin soil like Tanjore.

"Again a man of labour who earns his livelihood with his hands would require more of energy-giving foods like carbohydrates and fats. A man who earns his living with his brain, would require more of flesh-forming foods and proteins. Again in a tropical country and in the hot months of June, July and August less of concentrated animal diet would be desirable and healthful and vice versa in cooler regions and in wintry months more of such diets would be tolerated and advantageous".

Constipation and How to Get Rid of It

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By C. V. Venkatachalam
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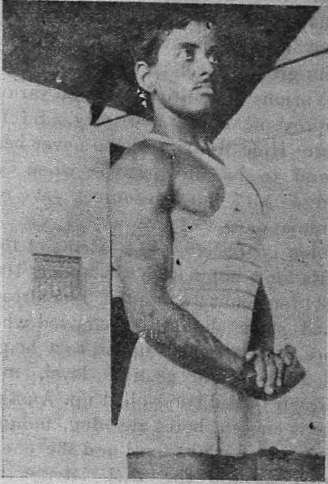
THE main cause for any physical ailment is the disorder in the most important organ of the human system—the stomach and intestines. If anybody wishes to be immune from any illness he must be very careful with these organs. He must see that they are kept well in order, and cleaned up. On no account heavy strain should be imposed upon them, *viz.* by loading them fully and making them work hard.

Of all the diseases affecting the workings of these organs, constipation is the worst. A man with a constipated stomach cannot enjoy the pleasures of this world. He will be aways gloomy and suffering from headaches and stomach-aches. He would not be able to enjoy the nature's refresher—the sleep. He would not be able to relish any food at all. On the whole his life will be a burden to him and he will be the most unhappy wretch in this world.

How to escape from this curse? We can say 90 % of the people suffer from this terrible disease. In the initial stages it can be easily cured by regulation of diet and practice of some special exercises. The victim must take plenty of fruits, vegetables like cabbage, cauliflower, turnips, onion etc. and foods rich in chlorine, like beets, radishes, cocoanuts, table-salt, cucumber, aspiragus, salt-fish etc. which expel waste, refresh, clean and purify the system. An excess of



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starch, sugar and clogging pultaceous food should be avoided. Plenty of water must be taken during the day and a tumbler of hot water and lime or lemon juice before going to bed. A visit should be paid to the latrine *daily at the same hour*, whether there is an urge to do so or not and in this way the bowels may be gradually re-educated and a daily action secured.

Then the last thing that is necessary is regular exercise. The following simple exercises can be taken daily in the morning by everybody in the open air. Not only will they help to

alleviate the constipation, but also help one to keep fit.

Exercise 1.—Stand erect, arms extended above the head, bend down touch the toes, keeping the head in line with arms and knees straight. Breathe out while bending down and in while going up.

Exercise 2.—Stand erect, feet 2 feet apart, arms locked over the head and first bend to the left and touch the left foot, then to the centre and then to the right and finally go up and bend as far back as possible thus completing the circle. The knees should be straight and the head should be in line with the arms throughout the movement. Breathing should be regulated.

Exercise 3.—Stand erect, feet 2 ft. apart and arms to the sides, palms upward. Bend and touch the left toe with the right hand and right toe with the left hand alternately. Breathe out while bending. Keep the knees straight.

Exercise 4.—Stand erect in attention position. Hips firm. Then raise slowly each leg alternately till it becomes parallel to the ground. Toes should be pointed and the other leg should never be bent. Repeat till tired.

Exercise 5.—Stand erect with hands on the hips. Then raise legs alternately and try to touch the chest with the knees. The toes should be pointing and the upper body should not bend.

Exercise 6.—Position as above, raise the legs backwards, as high as possible, without bending them, alternately. The upper body should not bend forward. Breathing regular.

Exercise 7.—Sit on the ground, legs stretched forward, toes pointing and hands below the buttocks. Slowly lean backward and rest the elbows on the ground. Lifting the legs from ground, flex legs alternately and touch the chest with the knees. (Cycling movement). Repeat till tired.

Exercise 8.—Lie flat on the ground and place your hands under the head. Then slowly raise the legs till it becomes perpendicular. Keep them there for some time and lower very slowly to the original position. Repeat till tired. Do not raise the head while raising legs.

No Real Decline of Mental Power With Increasing Age

"An unfortunate libel" was the term Dr. Irving Lorge, of Teachers College, Columbia University, applied to the popular idea that aged persons decline in mental ability, with advancing years.

Speaking before the meeting of the American Association for the Advancement of Science, Dr. Lorge said that the deterioration observed by psychologists and laymen is more apparent than real. It is due to a combination of dimming sight, slowing movements, dulled hearing, and a preoccupation with life's problems cumulatively. It is not a loss of mental power as such, but rather an inability to work as fast with mental tasks, Dr. Lorge said.

Tests given to 143 unemployed adults aged from 20 to 70 years indicated that the apparent decline with age differs when different mental tests are used as the measuring stick, those tests involving speed showing the greatest decline.—SCIENCE NEWS LETTER.

Topics of Interest from Periodicals

The Purpose of the Open - Air School.—*Dr. G. A. Dawson,* M.O.H. reports that the open air school at Darlington continues to give service to those children who while not so physically defective as to be altogether unable to attend school are yet too weakly to provide the mental and physical energy necessarily expended during attendance at an ordinary elementary school. He continues: "The 'delicate child'—a timid, sometimes under-nourished youngster with poor muscular tone and a lethargic pallid appearance but in whom physical signs of disease are not evident is the type particularly suitable for admission to the open-air school. It can confidently be said that attendance at this school for a year or more definitely prevents the menace of real physical deterioration in such a child who is on the borderline between good and ill-health. The combination of a comparatively open-air existence, during the major part of the child's waking hours, with the provision of a regular well-balanced nutritious and generous midday-meal, the freedom from mental worry, the absence of rigid discipline and the physical stimulus of warm spray baths followed by a good rub-down are the factors to which must be credited the steady benefit which is almost invariably derived by the children in regular attendance. At this school the delicate child is among his physical equals. He is no longer expected to keep pace in work and in games with more vigorous and energetic schoolfellows. His health has an opportunity amid optimum conditions to improve steadily unhampered by the worry and striving of scholastic pressure for which he is unfitted". During 1934, 200 children (116 boys, 84 girls) were in attendance; of this number 47 were discharged as recovered and fit to return to an ordinary elementary school. 21 left the school for other reasons (12 on reaching school-leaving age and 7 on removal out of the town). Of the 132 children in attendance at the end of the year 102 were classified as "delicate", the remainder being cripples, children with heart disease and healed tuberculosis.—*The Medical Officer.*

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Weight Reduction by Diet and Exercise.—*Can. Jour. of Medicine and Surgery, July, 1935.*

"In the ambition to shed weight, men and women have never paused to consider the advisability of misdirected endeavour. As a consequence, death has been the end-result of numerous treatments for obesity. Before launching an anti-fat offensive, every prospective patient should undergo a thorough physical examination at the hands of a reputable physician and should be careful to follow his recommendations to the letter", warns Dr. W. A. L. Styles in an article in Hygeia "The Campaign Against Corpulence".

"Merely because discretion has not been combined with determination, failure crowns many efforts to regain normality in weight. Weight reduction should be secondary to physical

betterment as a goal in the campaign against corpulence".

The safest general rule for superfatted persons to follow in reducing, the article suggests, is to refrain from eating between meals and to leave the table while still hungry. The only safe way to reduce is by dieting along the lines suggested by a qualified physician under whose supervision the treatment is conducted. Proper diet, supplemented by exercises suited to individual needs, brings dividends in the form of health: whereas wrong diet and faulty exercise, particularly when aggravated by objectionable medication, may wreck health and induce premature death.

The Adult Weight Conference of America has addressed a timely message to the victims of a too generous poundage who are debating whether to try starvation, Turkish baths, massage, calisthenics or medication. The warning points out the dangers to health that indiscriminate reduction may cause.—*L. P. T.—National Health Review.*

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Dogs Cannot See Colour.—This is also true with ultra-violet rays. Man can see only in the band of light between the infra-red and the ultra-violet. There is scientific evidence that much is happening in the infra-red band and below it, although to us nothing appears to be occurring in this band of electro-magnetic waves.

It is generally believed that dogs cannot detect colour, while it has been demonstrated that at least some elephants can. Dogs see life around them, we believe, in black and white as in moving pictures. In India there is a very large lumber company which has diminutive locomotives to pull trains of logs along its narrow-gauge railway to its mills. The logs are brought in from three different directions and the three lines converge into the main line. At the point of convergence there is a switch directing the wheels of the train on to the main line. An elephant is employed at this switch as the switchman. His work is so reliable that he requires no direction from man. Each of the different lines converging into the main line is designated by a disc of a different colour from the others, but of the same size. One is white, one is black, and one is red. The switch has three positions, and these positions are designated by discs of corresponding colours. When the elephant sees the locomotive coming down the main line, he throws the switch to correspond with the disc on the engine and the train travels over the tracks intended for it. This elephant, I am told by an eye-witness, is so delighted when the train passes him, that he often throws up his trunk and makes a tremendous noise as if for sheer joy of accomplishment.—*Health for All.*

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Effect of Soda on Vegetables.—It is indeed gratifying to read that no less an authority than Sir. W. Longdon-Brown warned all cooks that the familiar process of adding a piece of soda to the water when boiling green vegetables, in order to retain their colour, has the effect of entirely destroying the valuable Vitamin C.—*Health for All.*

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Ancient Bacteria.—A severe earthquake in northern India some years ago was followed by a mysterious epidemic resembling cholera. People

believed that germs which had been buried were released by the disturbance of the earth's surface, causing the disease. While this might seem far-fetched, C. B. Lipman, of the University of California, has demonstrated that bacteria are certainly long-lived. He found them in soils which had been sealed for twenty-five and forty years. He took a brick from a mission house thought to be nearly a century and a half old. From the inside of the brick he made a culture, and disclosed bacteria. A similar success was obtained with material from a pre-Inca pyramid known to be over a thousand years old.

Living bacteria were also obtained from anthracite coal from Wales and Pennsylvania (*The Bloodless Phlebotamist*).—*Good Health—U.S.A.*

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Keep up Eternal Youth.—"The perfect loveliness of a woman's countenance can only consist in that majestic peace, which is founded in the memory of happy and useful years full of sweet records; and from the joining of this with that yet more majestic childishness which is still full of change and promise.—*John Ruskin.*

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Idiot Genius.—Why an occasional "idiot genius" can perform wonderful feats of memory or solve problems with lightning speed, although otherwise his mind is below normal, is explained by one physician : the individual's mind runs on a single track, and, as he is not distracted by other interests, he achieves conspicuous results in his chosen one—*Medical Times.*

Book Reviews

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The Master Key for Life's Problems. *By Paul A. Liebelt*, Published by the Christopher Publishing House, Boston. Price $ 2.50 net.

In this book, the author has revealed his 'New Philosophy' and has attempted to solve the mystery of energy, the mystery of life' and 'the mystery of the soul' in his own novel way in the form of a thrilling and sensational narrative, introducing a number of lively characters and thus making an otherwise abstruse subject, enjoyable reading. He preaches equality and fraternity and visualizes a world full of love, full of compassion and full of sacrifice, and the following summing-up of his new philosophy is really significant:—

"When we realize that our longing for happiness radiates from the soul and that the soul is yearning for the conquest of the body's egotism, we know that the longed-for happiness can be attained only by this conquest of egotism. Naturally, then, each step of this triumph over egotism, in every form—faults, vices, passions and the like must give ever increasing happiness. Thus happiness, too, is 'built-up,' step by step. And happiness will reach its climax and be complete when the last trace of egotism has vanished. And this work of the body is the cause and purpose of living, the salvation of the soul by the body."

This philosophy may be new to western savants, but it is after all the essence of the old Hindu Philosophy that the author has emphasized here: *viz.*, the conquest of Soul over Matter.

The book is nicely printed and well-bound, therey keeping it in harmony with the charming story which it contains. We heartily commend the book to our readers.

Physical Education in Indian Schools. —*By George F. Andrews*; B.A.L.T (Madras), B.P.E., M. Ed. (Springfield, U.S.A.) M.A., Ph.D., (Columbia, N. Y.), Illustrated. Published by "The Little Flower Co., 317, Linga Chetty Street, Madras, Price Rs. 2-8/- per copy.

This treatise on Physical Education, is the outcome of the author's profound knowledge and vast experience gained through wide travel and intensive survey and study of the existing conditions in Indian Schools in his official capacity as Asst. Physical Director to the Government of Madras and as such has the force of authority behind it. The first chapter gives a brief historical survey of Physical Education in India in the past, in a lucid and impressive style, which goes to confirm the general belief that physical education has considerably deteriorated in modern times and has not been given its due share of importance in the educational curriculum. The author, after a critical examination of the theories and programmes of physical education at present existing in this country has devised a practical programme for adoption in Indian schools. The book is profusely illustrated and is free from all technicalities. We strongly commend it to the school-going population and the general public who care for the physical welfare of their children.

Sex in Human Relationships.—*By Dr. Magnus Hirschfeld*, Translated by John Rodker with an Introduction by Norman Haire, CH. M., M.B., Published by John Lane, The Bodley Head, London. Price. sh. 8-6 nett.

Sexology is a subject which the youngsters of both sexes should know something about. But generally it is taboo, and no sex matters are even discussed in their presence. This hush, hush policy is responsible for all human woes and if only the youngsters were taught all about sex and love and the diseases and the disharmony that their ignorance on sex matters gives rise to, the world would be quite different from what it is now—a happier and a healthier one. Any book therefore on the subject of sex is welcome. Sexology and Psychology are inter-related and this is the only book of its kind to cover this ground, in a compact and all inclusive manner. Dr. Hirschfeld, is an authority on the subject and this book is the outcome of his wide knowledge and experience as a life-long sexologist. The book will prove to be of utmost interest to all who seek guidance for their own and others' lives.

Grama Swastha (Hindi).—It is a handsome compilation mostly as 'Dramas' on health matters. The pieces were prepared by eight teachers of the Vernacular Schools of the Sultanpur district in the U. P. of Agra and Oudh. There are a few mistakes here and there which require correction and which we hope will receive attention in the next edition. This 212 paged book is priced annas six only and can be had from the Honorary Secretary, Dt. Red Cross Branch Sultanpur, Oudh. Local Bodies will do well to purchase and distribute copies free to the deserving and poor boys and girls of the villages to enable them to know the nature of diseases and how to prevent them.—*Dr. D. C. Varma.*

Health Calendar—August 1936

By Mr. N. Rajaram Naidu,

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Sat.	1	Self knowledge, self reverence and self control are necessary for good health.
Sun.	2	*Avani Avittam.*
Mon.	3	Laughing is a much better exercise than grumbling.
Tues.	4	Drink more milk and be fit.
Wed.	5	Flies spread disease—destroy them.
Thurs.	6	Live in the open—prevent Tuberculosis.
Friday.	7	An apple a day keeps the doctor away.
Sat.	8	Babies need much air and sunshine.
Sun.	9	*Gokulashtami.*
Mon.	10	Always wait for a true appetite.
Tues.	11	Cleaner the teeth, brighter the smile.
Wed.	12	Health is man's birthright.
Thurs.	13	Quinine is the best preventive medicine for Malaria.
Friday.	14	A damp house is never healthy.
Sat.	15	*Assumption Day.*
Sun.	16	Never bolt your food.
Mon.	17	Fleas and bugs do not flourish in a clean house.
Tues.	18	Every laugh strengthens life.
Wed.	19	Complete quiet in a sick room is a special necessity.
Thurs.	20	To be forewarned is to be forearmed.
Friday.	21	*Anopheles mosquito as carrier of Malarial parasite first noted by Ross 1897.*
Sat.	22	Rats are the means by which bubonic plague is spread.
Sun.	23	Measures for exterminating mosquitoes will assist in eradicating Malaria.
Mon.	24	Insure life by healthy living.
Tues.	25	Lowered body resistance means increased susceptibility.
Wed.	26	Disease germs thrive on milk : keep the flies out of it.
Thurs.	27	Clean teeth do not decay readily.
Friday.	28	Sleep is nature's sweet restorer.
Sat.	29	Keep dustbins at a safe distance from the house.
Sun.	30	*Onam.*
Mon.	31	Without health, financial wealth is of no avail.